AUDIT REPORT

2023

ANALYTIX AUDIT

Security Assessment
X2 AI Token

June 5, 2023

Audit Status: Pass

Audit Edition: Advance

PROTOCOL

Risk Analysis

Classifications of Manual Risk Results

Classification	Description
🔴 Critical	Danger or Potential Problems.
🟠 Major	Be Careful
🟢 Minor	Pass, Not-Detected or Safe Item.
ℹ️ Informational	Function Detected

Manual Code Review Risk Results

Contract Priviledge	Description
🟢 Can mint?	Pass
🟢 Edit taxes over 25%?	Pass
🟢 Max Tx?	Pass
🟢 Max Wallet?	Pass
🔴 Has to enable trading?	Owner can pause trading
🟢 Modify Tax	Pass
🟢 Can blacklist?	Pass
🟢 Is Honeypot?	Liquidity has not been added
🟢 Trading Cooldown	Not Detected
🔴 Can Pause Trade?	Owner can pause trading
🟢 Pause Transfer?	Pass

Contract Priviledge	Description
🟢 Is Proxy??	Not Detected
🟢 Is Anti Whale?	Not Detected
🟢 Is Anti Bot?	Not Detected
🟢 Is Blacklist?	Not Detected
🟢 Blacklist Check	Pass
🟢 is Whitelist?	Not Detected
🟢 Buy Tax	10
🟠 Sell Tax	20
🟢 Can Take Ownership?	Not Detected
🟢 Hidden Owner?	Not Detected
ℹ️ Owner	0xAf2fF4402Ab17f60A592693349D33cC1bb093eD2
🟢 Self Destruct?	Not Detected
🟢 Other?	Not Detected
🟢 Other?	Not Detected
🟢 Holders	1
🟢 Auditor Confidence	Medium

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.

Table of Contents

Assessment Summary

This report has been prepared for X2 AI Token on the Binance Smart Chain network. AnalytixAudit provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.

- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.

- Assessing the codebase to ensure compliance with current best practices and industry standards.

- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.

- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders

- Thorough line-by-line manual review of the entire codebase by industry experts.

Project Overview

Token Summary

Parameter	Result
Address	0xC72354E22ef8F89BAb568c7e4EF5c5FFA901925D
Name	X2 AI
Token Tracker	X2 AI (X2AI)
Decimals	9
Supply	5,000,000,000
Platform	Binance Smart Chain
compiler	v0.8.7+commit.e28d00a7
Contract Name	X2AI
Optimization	Yes with 200 runs
LicenseType	No
Language	Solidity
Codebase	https://bscscan.com/address/0xC72354E22ef8F89BAb568c7e4EF5c5FFA901925D#code
Payment Tx	Corporate
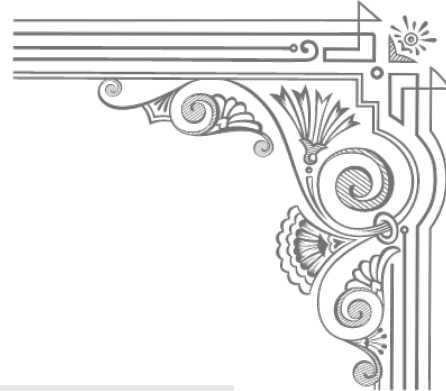
Project Overview

Simulation Summary

Parameter	Result
Transfer From Owner	Pass
Transfer From Holder	Pass
Add Liquidity	Pass
RemoveLiquidity	Pass
Buy from Owner	Pass
Buy from Holder	Pass
Sale from Owner	Pass
Sale from Holder	Pass
Remove Liquidity	Pass
SwapAndLiquify	Pass
SwapAndSale w/Fee	Pass
SwapAndSale TX	
SwapAndSaleNoFee	Pass
SwapAndSale No/Fee TX	
ExcludeFromFees	Pass
LaunchPad	PinkSale

Parameter	Result
Pool Creation	Pass
Pool Creation TX	
Pool Finalize	Pass
Pool Finalize TX	
Enable	Pass

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.

Main Contract Assessed
Contract Name

Name	Contract	Live
X2 AI	0xC72354E22ef8F89BAb568c7e4EF5c5FFA901925D	Yes

TestNet Contract Assessed
Contract Name

Name	Contract	Live
X2 AI	0x6B1fD01cd290976cc3dEba4cB8a108d6b8A46D19	Yes

Solidity Code Provided

SolID	File Sha-1	FileName
X2AI	9eb45379dccf041954c13960d4e559933834c11	X2AI.sol
X2AI		
X2AI		
X2AI		

KYC Information

The Project Owners of X2 AI is not KYC.

KYC Information Notes:

Auditor Notes: No info founde

Project Owner Notes:

Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of weakness variants that are specific to smart contracts.

ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	X2AI.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	X2AI.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	X2AI.sol	L: 0 C: 0
SWC-103	Pass	A floating pragma is set.	X2AI.sol	L: 0 C: 0
SWC-104	Pass	Unchecked Call Return Value.	X2AI.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	X2AI.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	X2AI.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	X2AI.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set..	X2AI.sol	L: 0 C: 0
SWC-109	Pass	Uninitialized Storage Pointer.	X2AI.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	X2AI.sol	L: 0 C: 0

| ID	Severity	Name	File	location
SWC-111	Pass	Use of Deprecated Solidity Functions.	X2AI.sol	L: 0 C: 0
SWC-112	Pass	Delegate Call to Untrusted Callee.	X2AI.sol	L: 0 C: 0
SWC-113	Pass	Multiple calls are executed in the same transaction.	X2AI.sol	L: 0 C: 0
SWC-114	Pass	Transaction Order Dependence.	X2AI.sol	L: 0 C: 0
SWC-115	Pass	Authorization through tx.origin.	X2AI.sol	L: 0 C: 0
SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	X2AI.sol	L: 0 C: 0
SWC-117	Pass	Signature Malleability.	X2AI.sol	L: 0 C: 0
SWC-118	Pass	Incorrect Constructor Name.	X2AI.sol	L: 0 C: 0
SWC-119	Pass	Shadowing State Variables.	X2AI.sol	L: 0 C: 0
SWC-120	Pass	Potential use of block.number as source of randonmness.	X2AI.sol	L: 0 C: 0
SWC-121	Pass	Missing Protection against Signature Replay Attacks.	X2AI.sol	L: 0 C: 0
SWC-122	Pass	Lack of Proper Signature Verification.	X2AI.sol	L: 0 C: 0
SWC-123	Pass	Requirement Violation.	X2AI.sol	L: 0 C: 0
SWC-124	Pass	Write to Arbitrary Storage Location.	X2AI.sol	L: 0 C: 0
SWC-125	Pass	Incorrect Inheritance Order.	X2AI.sol	L: 0 C: 0

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ID	Severity	Name	File	location
SWC-126	Pass	Insufficient Gas Griefing.	X2AI.sol	L: 0 C: 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	X2AI.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	X2AI.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	X2AI.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	X2AI.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	X2AI.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	X2AI.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	X2AI.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	X2AI.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	X2AI.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	X2AI.sol	L: 0 C: 0

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.

Inheritance

The contract for X2 AI has the following inheritance structure.
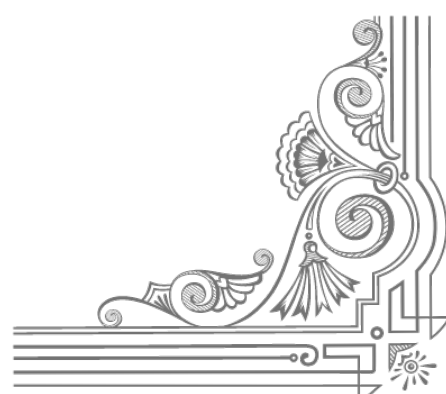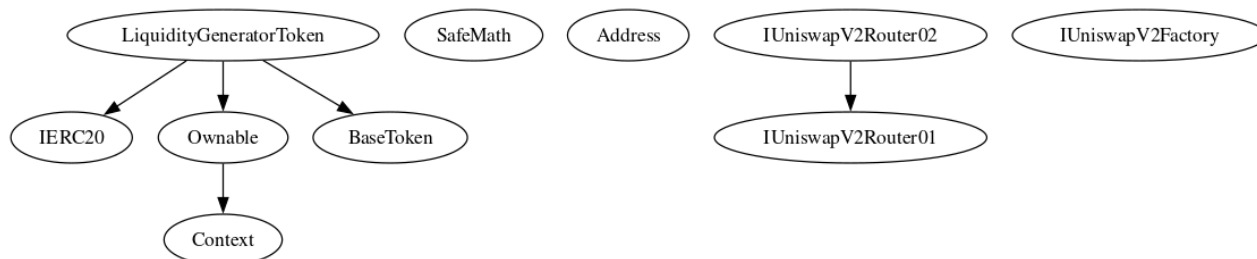
Smart Contract Advance Checks

ID	Severity	Name	Result	Status
X2AI-01	Minor	Potential Sandwich Attacks.	Pass	Not-Found
X2AI-02	Minor	Function Visibility Optimization	Pass	Not-Found
X2AI-03	Minor	Lack of Input Validation.	Pass	Not-Found
X2AI-04	Major	Centralized Risk In addLiquidity.	Pass	Not-Found
X2AI-05	Minor	Missing Event Emission.	Pass	Not-Found
X2AI-06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not-Found
X2AI-07	Minor	State Variables could be Declared Constant.	Pass	Not-Found
X2AI-08	Minor	Dead Code Elimination.	Pass	Not-Found
X2AI-09	Major	Third Party Dependencies.	Pass	Not-Found
X2AI-10	Major	Initial Token Distribution.	Pass	Not-Found
X2AI-11	Major	Complexity on the tax calculations.	Pass	Not-Found
X2AI-12	Major	Centralization Risks In The X Role	Pass	Not-Found
X2AI-13	Informational	Extra Gas Cost For User..	Pass	Not-Found
X2AI-14	Medium	Unnecessary Use Of SafeMath	Fail	Not-Found
X2AI-15	Medium	Symbol Length Limitation due to Solidity Naming Standards.	Pass	Not-Found
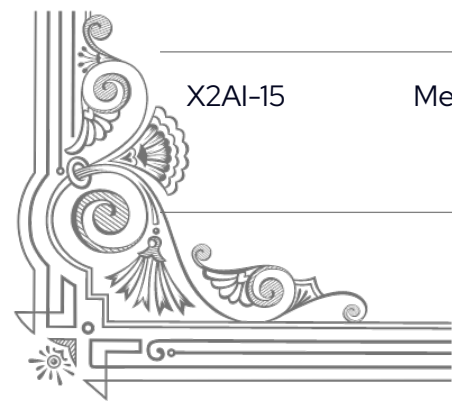
ID	Severity	Name	Result	Status
X2AI-16	Medium	Invalid collection of Taxes during Transfer.	Pass	Not-Found
X2AI-17	Informational	Conformance to numeric notation best practice.	Pass	Not-Found
X2AI-18	Informational	Enable Trade and Exclude Exist to create a whitelist.	Pass	Not-found
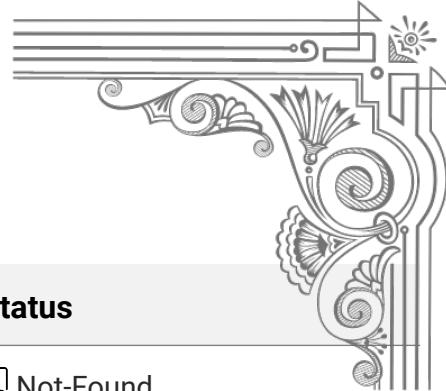
X2AI-14 | Unnecessary Use Of SafeMath

| Category	Severity	Location	Status
Logical Issue	🟠 Medium	X2AI.sol: 454,9	🗐 Not-Found

Description

The SafeMath library is used unnecessarily. With Solidity compiler versions 0.8.0 or newer, arithmetic operations
    will automatically revert in case of integer overflow or underflow.
    library SafeMath {
    An implementation of SafeMath library is found.
    using SafeMath for uint256;
    SafeMath library is used for uint256 type in contract.

Remediation

We advise removing the usage of SafeMath library and using the built-in arithmetic operations provided by the
    Solidity programming language

Project Action
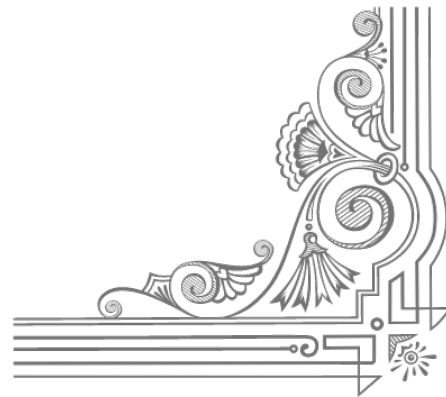
Technical Findings Summary

Classification of Risk

Severity	Description
🔴 Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
🟠 Major	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
🟡 Medium	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
🟢 Minor	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
🔵 Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

Findings

Severity	Found	Pending	Resolved
🔴 Critical	1	1	0
🟠 Major	2	2	0
🟡 Medium	0	0	0
🟢 Minor	0	0	0
🔵 Informational	0	0	0
Total	3	3	0

Social Media Checks

Social Media	URL	Result
Twitter	https://twitter.com/X2_protocol	Pass
Other	https://discord.gg/VpaBq66hge	Pass
Website	https://x2protocol.com/	Pass
Telegram	https://t.me/x2protocol	Pass

We recommend to have 3 or more social media sources including a completed working websites.

Social Media Information Notes:

Auditor Notes: undefined

Project Owner Notes:
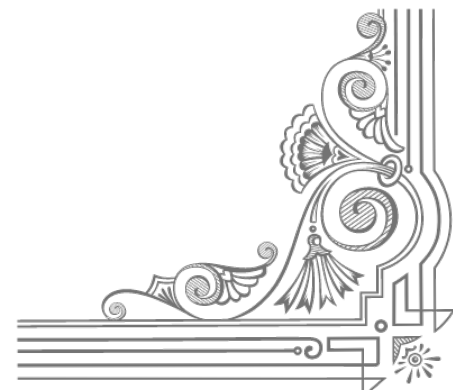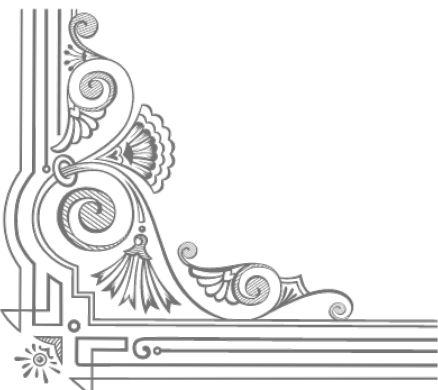
Assessment Results

Score Results

Review	Score
Overall Score	83/100
Auditor Score	81/100
Review by Section	Score
Manual Scan Score	37/53
SWC Scan Score	37 /37
Advance Check Score	9 /19

The Following Score System Has been Added to this page to help understand the value of the audit, the maximun score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

Audit Passed

Audit Passed

Current project reviewed successfully passed audit, meeting all
requirements for approval per Analytix Audit guidelines.

@FreddyCryptos
Founder & CEO

Today's Date
Dubai - United Arab Emirates
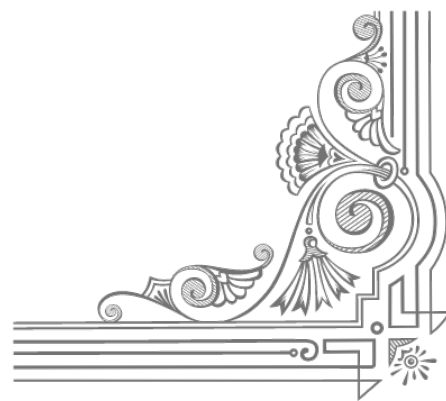
Assessment Results

Important Notes:

- issues or vulnerabilities were found.

- Always DYOR on the project itself.

Auditor Score =81
Audit Passed

Audit Passed

Current project reviewed successfully passed audit, meeting all
requirements for approval per Analytix Audit guidelines.

@FreddyCryptos
Founder & CEO

Today's Date
Dubai - United Arab Emirates

Appendix

Finding Categories

Centralization / Privilege

Centralization / Privilege findings refer to either feature logic or implementation of components that actagainst the nature of decentralization, such as explicit ownership or specialized access roles incombination with a mechanism to relocate funds.

Gas Optimization

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM opcodes resulting in a reduction on the total gas cost of a transaction.

Logical Issue

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on howblock.timestamp works.

Control Flow

Control Flow findings concern the access control imposed on functions, such as owner-only functionsbeing invoke-able by anyone under certain circumstances.

Volatile Code

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that mayresult in a vulnerability.

Coding Style

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe codebase more legible and, as a result, easily maintainable.

Inconsistency

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code,such as a constructor assignment imposing different require statements on the input variables than a setterfunction.

Coding Best Practices

ERC 20 Conding Standards are a set of rules that each developer should follow to ensure the code meet a set of creterias and is readable by all the developers.

Disclaimer

AnalytixAudit has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocation for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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